

MAPPING AND INVENTORY OF SEVEN ANTELOPE TRAPS IN  
ELKO COUNTY, NEVADA

by

Michael R. Polk  
Principal Investigator

Prepared for:

Bureau of Land Management  
300 Booth Street, P.O. Box 12000  
Reno, Nevada 89520

Prepared by:

Sagebrush Archaeological Consultants  
4263 Monroe Boulevard  
Ogden, Utah 84403

Under Contract No. NV950-CT6-011

Archaeological Report No. 224

FINAL REPORT

May 12, 1987

BLM LIBRARY -  
SC-324A, BLDG. 50  
DENVER FEDERAL CENTER  
P. O. BOX 25047  
DENVER, CO 80225-0047

# 16572467

E  
78  
. 114  
P694  
1987

## TABLE OF CONTENTS

I.	INTRODUCTION.....	3
II.	METHODOLOGY.....	5
	Mapping Procedures.....	5
	Inventory, Artifact Collection and Cataloging.....	6
	Wall Recording Procedures.....	9
	Tree Ring Sample Collection Procedures.....	9
III.	RESULTS.....	11
	Antelope Trap Wall Descriptions.....	11
	Tobar Trap (CRNV-11-3336).....	11
	Clover Valley Trap (CRNV-11-3350).....	13
	South Dry Lake Flat Trap (CRNV-11-3338).....	16
	North Dry Lake Flat Trap (CRNV-11-3337).....	18
	Ruby Wash Trap (CRNV-11-142).....	20
	Currie Hills Trap (CRNV-11-3334).....	22
	Cobre Trap (CRNV-11-3335).....	24
	Tree Ring Samples.....	28
IV.	RECOMMENDATIONS.....	30
	General Methodological Recommendations.....	30
	Tree Ring Sampling and Analysis Recommendations.....	31

### APPENDICIES:

- A. Letter from Tree-Ring Laboratory
- B. Tree Ring Sample Location Catalog
- C. Photographic Catalog

ATTACHMENTS (Separates): 1) Field Notes, Transit Notes, Sketches  
2) Photographs

BLM LIBRARY  
SC-324A, BLDG. 50  
FEDERAL CENTER  
DENVER, COLORADO

BUREAU OF LAND MANAGEMENT LIBRARY  
Denver, Colorado



88013936

## I. INTRODUCTION

On July 18, 1986 the Bureau of Land Management (BLM) State Office in Reno, Nevada awarded Sagebrush Archaeological Consultants (Sagebrush) a contract (No. NV950-CT6-011) to conduct an antelope trap data salvage project in the Elko District in northeastern Nevada (Fig. 1). The primary objective of the data salvage was to retrieve information which could easily be lost through fire or vandalism by conducting a thorough documentation of each trap through mapping and artifact collection. It was also an objective to obtain dendrochronological samples from the juniper wood in the traps in order to attempt dating of the structures.

Sagebrush undertook a study of only seven of the original ten identified traps due to a reduction by the BLM. Thus, the sites studied include the Currie Hills Trap (CRNV-11-3334), Cobre Trap (CRNV-11-3335), Tobar Trap (CRNV-11-3336), North Dry Lake Flat Trap (CRNV-11-3337), South Dry Lake Flat Trap (CRNV-11-3338), Clover Valley Trap (CRNV-11-3350), and the Ruby Wash Trap (CRNV-11-142). The fieldwork for the project was undertaken in two phases by four personnel from Sagebrush including Michael R. Polk, Principal Investigator, Ann S. Polk, Staff Archaeologist, Keith R. Montgomery and Jacki A. Montgomery, Consulting Archaeologists. The first fieldwork phase was conducted in the period between August 4 and 16, 1986 by M. Polk, K. Montgomery and J. Montgomery. A second field session became required when it was discovered that additional field data was necessary to adequately complete the report. This session was conducted between April 17 and 21, 1987 by M. Polk and A. Polk. A total of 47 person days were expended mapping and collecting at the seven traps. The tree ring sample preparation, artifact cataloging and report preparation were completed by the author with the assistance of Ann S. Polk. The data in the antelope trap wall descriptions were derived from field notes taken by Jacki Montgomery, Ann S. Polk and the author.

The description of each site, discussion of locations and other aspects of standard site reports will not be included in this report since the focus of the project was on description of the architectural aspects of the traps and the content and spatial distribution of the cultural material present. Thus, following are three chapters covering 1) the methodological procedures involved in mapping, inventory, artifact collection and tree-ring sample collection; and 2) trap wall descriptions and results of the tree ring sample collection at each trap; and 3) recommendations for how to approach future projects of this type. Several appendices cover the tree ring analysis, sample location catalog, and photographic catalog.

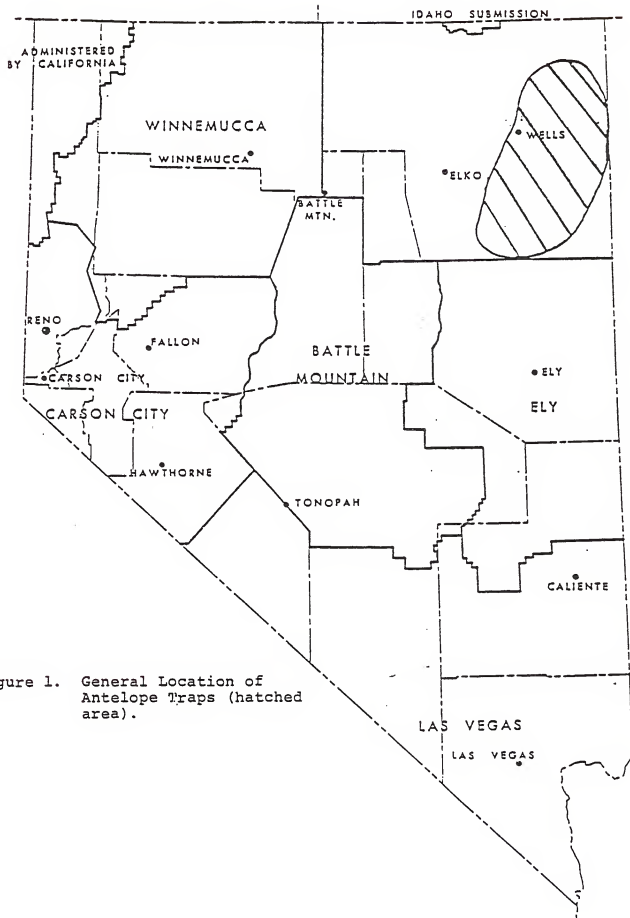


Figure 1. General Location of Antelope Traps (hatched area).

## II. METHODOLOGY

### Mapping Procedures

Following the requirements set forth in the Request for Proposals (RFP) and reiterated in Sagebrush's Technical Proposal (1986: 4-5), detailed mapping of all seven antelope traps was undertaken. Following were the mapping tasks to be conducted (1986: 4):

Initially, all portions of each trap will be located and mapped. Internal and external walls, trap wings, corral walls and hunting blinds will be completely defined and mapped. The traps will be mapped in metric scale using a transit with a distance accuracy of .3048 per 30.478 meters and horizontal angular accuracy of + one minute for each point, artifact or cultural feature plotted. The map scale will be 10 centimeters to 100 meters and will be mapped on mylar or high quality paper.

At each trap a minimum of nine datums will be established which are permanent metal bar markers driven into the ground a minimum of one foot. The tops shall protrude no more than six inches above the surface. The main datum will be permanently marked with the site number and be placed around the interior walls of each trap and will be located so that using only the datums, a physical outline of the trap could be reconstructed. Each sub-datum will be individually marked with letters that correspond to the maps.

A prime datum was first established at each trap, preferably within the wall, though this was not always practical. At some traps portions of the walls were non-existent in some areas or so fragmentary that it was not known if a datum rested within or adjacent to a former wall feature. In other cases the wall was so dense with juniper trunks and branches that it was not possible to work from a datum set within the wall itself. A datum was always placed, however, where a wall existed or was definitely known to once exist. The prime datum was always designated "A" with additional "sub" datums around the trap walls designated with alphabetically sequential letters (B,C,D...). A minimum of nine of these were established at each trap using smooth round 1/2 " diameter by 18" long steel bars driven into the ground a minimum of 12" and protruding above ground no more than 6". Thick rectangular aluminum tags were wired to each stake with information embossed on the tops. The information included the site number and datum number of the particular stake (e.g. Site CRNV-11-3336/Datum B).

Mapping was generally accomplished by two individuals, one at the transit with notebook and the other holding a level rod. During Phase 1 of the fieldwork a THS Model 7100 transit was used along with a level rod with English Engineering scale measurements on it. This was used since a stadia rod could not be procured on

short notice. All figures obtained from the level rod were translated into metric equivalent in the lab for use in prepared the maps. During Phase 2 a K & E Mountain Transit was used with metric stadia rod. Several designations were used for plotted points including the following:

Datum readings: A to X...

Location shots (non-datum): S + dash + number (e.g. S-1)

Artifact location shots: Site # + dash + number (e.g. 3335-2)

Thus, when reconstructing the maps for each trap it was clear exactly what each point designation referred to. Both directional and distance readings were taken while mapping. The compass on the transit (a 17 degree declination was utilized) was first locked onto true north and the transit then swiveled to determine horizontal direction. Stadia intercept technique was then used to determine distances.

After conducting some mapping at the first site (Tobar Trap) it was determined that the most effective way to survey the walls of the traps was to begin by placing the transit at one or more locations within the trap where most or much of the trap walls (and associated artifacts) could be measured with the transit. Datum points were spaced more or less evenly around the walls and plotted from one or more interior transit set-up locations. Artifacts and non-datum locations were also plotted from these points. All of the data was written in a transit field book for later use in creating a map in the lab.

#### Inventory, Artifact Collection and Cataloging Procedures

A pedestrian survey of each trap was made to determine the number of and distribution of artifacts and cultural features present. As noted in the Technical Proposal (Sagebrush 1986: 5-6) this inventory includes:

...pedestrian inventory of each antelope trap corral, mapping of all tools, debris concentrations, and cultural features, collection of all tools.... Initially, Sagebrush will conduct a walking inventory of each trap in transects spaced five meters apart covering the entire interior of the corral and out a minimum of 50 meters beyond the main corral walls. The area within the circular wings of traps CRNV-11-3334 will be inventoried using ten meter transects.... In addition, all wings or other extensions of the traps outside the intensive survey area shall be walked to their ends. During this inventory all lithic tools, lithic debitage or concentrations of debitage and cultural features will be temporarily flagged with colored pin flags to facilitate later mapping and collection. Flagging will be removed after mapping is complete.

All lithic tools, debitage concentrations, concentrations of historic items, hearths, brush and/or rock piles, and other cultural features will be mapped in relation to the datum. These items will be mapped to ...[the same accuracy as the corral walls] and will be plotted on the maps of the traps. Individual flakes will not be mapped, but general number and locations will be noted.

All lithic tools (artifacts showing bifacial or unifacial retouch) will be collected and bagged individually with BLM site number, BLM project number, artifact number (corresponding to that on map), legal description of the site, brief artifact description, collector's name and date.... All artifacts collected will be submitted to the COR following completion of the project.

The inventory was able to proceed as outlined in the Technical Proposal. Initially, at almost all traps it was found most effective to begin the survey by walking parallel transects around the outside of the traps out to the required 50 meters beyond the main corral walls. Then, north-south or east-west parallel transects were walked across the interior of the traps until the survey was complete. Whenever an artifact was encountered by a surveyor it was marked with a pin flag for later plotting and collection. During most of the survey toilet paper or flagging tape was left on sagebrush to mark the end transect for orienting the next swath (the flagging tape was later retrieved). At the Cobre Trap, however, high flagged poles were placed at transect ends to orient the surveyors. Following is a brief description of how the pedestrian survey was carried out at each site:

Tobar Trap: The outside perimeter of the trap was first walked using five meter spaced transects out a total of 50 meters (10 transects). The interior was then walked in a north-south orientation in five meter spaced transects. The number of transects walked within the trap is not exactly known.

Clover Trap: The outside perimeter of the trap was first walked in five meter spaced transects out a total of 50 meters (10 transects). The interior of the trap was then walked using parallel transects spaced five meters apart in an east-west orientation. The exact number of transects walked within the trap is not known.

North Dry Lake Flat Trap: The outside perimeter of the trap was first walked in five meter spaced transects out a total of 50 meters (10 transects). The interior of the trap was then walked using parallel transects spaced five meters apart in an east-west orientation. The exact number of transects walked is not known.

South Dry Lake Flat Trap: The outside perimeter of the trap was first walked in five meter spaced transects out a total of 50 meters (10 transects). The interior of the trap was then walked using parallel transects spaced five meters apart in a north-south orientation. The exact number of transects walked is not known.

Ruby Wash Trap: The outside perimeter of the trap was first walked in five meter spaced transects out a total of 50 meters (10 transects). The interior of the trap was then walked using parallel transects spaced five meters apart in an east-west orientation. The exact number of transects walked is unknown.

Currie Hill Trap: The outside perimeter of the trap was first walked in five meter spaced transects out a total of 50 meters (10 transects). The interior of the trap was then walked using parallel transects spaced five meters apart in a north-south orientation. The interior of the curved wing was then surveyed using east-west transects spaced 10 meters apart (when an additional 180 meters was plotted onto the wing, this part of the wing interior was also walked in 10 meter east-west transects spaced 10 meters apart). The exact number of transects walked is not known.

Cobre Trap: The outside perimeter of the trap was first walked in five meter spaced transects out a total of 50 meters (10 transects). The interior of the trap was then walked using parallel transects spaced five meters apart in a north-south orientation. The exact number of transects walked is not known.

The artifacts marked during the survey were mapped in during and after plotting of the trap walls. It was found most effective to have the collection of artifacts made after the mapping was complete or by a person not involved in the corral wall mapping procedures. During the collection process it was found that when artifact locations were marked with pin flags in high sagebrush, relocating them was a real problem. When those locations were also marked with colored flagging tape (on adjacent sagebrush bushes) it provided the visibility necessary to readily identify the locations.

Lithic tools and unusual artifactual items were collected in plastic zip-lock bags and enclosed with a tag noting the site and artifact number. When they reached the lab the artifacts were briefly described and measured and then rebagged with a tag noting information as specified above.



### Wall Recording Procedures

Another of the tasks required for this project was that of describing and photographing the walls of each trap as well as any hunting blind encountered. This was necessary in order to attempt to understand construction techniques. This description was written down as the recorder followed the trap walls around with a drag measuring tape from Datum A to the end datum. Those datums were used as location markers for the descriptions. Included in the description and measurements were: lengths and diameters of the juniper branches and trunks present, methods used to fell the tree parts used in the wall construction, the density of the walls, the absence of walls if that were the case, the preservation state of the walls, and whether there were double walls, upright poles, living trees or other unusual features in the walls. In addition, one black and white photo and one color slide were taken of each described wall section and each cultural feature noted. These descriptions appear narratively as part of Chapter III (RESULTS) and as original field notes in a separate attachment.

### Tree Ring Sample Collection Procedures

Tree ring samples were required to be taken as part of this project in order to attempt to obtain some reliable dating data for the traps beyond the general dates provided by artifacts present and some limited ethnographic data. The procedures to be followed were outlined in the Technical Proposal as such (1986: 4-5):

Up to 200 tree-ring samples will be taken from the traps. The number from each trap will be decided by the ...COR before beginning work. The samples taken will be complete cross-sections of limbs or trunks exhibiting bark, insect galleries or other evidence of an original surface, if present, or the best preserved wood available at a location if an original surface cannot be found. The pieces will be cut with a high quality hand saw (of a type recommended by Dr. William Robinson of the University of Arizona Tree Ring Laboratory) in pieces two to five inches in length. The pieces will be cut in such a way that the trunk/limb surface will not be destroyed. Portions of the traps to be sampled (if present and at the COR's discretion) are the main corral wall, all internal and external walls, each wing wall and wooden hunting blinds. After samples are taken the remaining limbs/trunks will be returned to their original locations. The sample pieces will be carefully stored for transport back to the laboratory and packaged for shipping to the Tree Ring Laboratory in Tucson (following directions provided by Dr. Robinson) for analysis. The tree-ring samples will be

curated by the Laboratory of Tree-Ring Research for future reference.

Due to the reduction in number of traps studied only 140 samples were collected (20 from each trap). It was quickly found that the samples were best collected after all other work was completed at a trap. When done after the samples were taken, it was found that the sawed areas were often in much disarray. This compromised the quality of the photographs and description of the walls. Following Dr. Robinson's advice a Skodco Pruning saw with a 24" blade was purchased for use in cutting samples at the traps. The procedure used to collect the samples was initially to choose a limb or piece of wood which contained some bark (very few did) and had a complete cross-section (many pieces did not because they were split or were malformed during growth (many juniper limbs are misshapen)). Two cuts were then made in each limb since the best parts of the limbs were usually toward their center. It was quickly found that a change of technique was necessary in order to obtain the necessary samples within a reasonable time period. Since Tobar Trap was sampled first, small limbs were the rule and sawing was not too difficult. However, it was found that many limbs were so old and brittle that the vibration and stress of sawing would often break them apart. It was eventually determined that if pieces were first wrapped in clear wide plastic adhesive tape, they held together much better. Many pieces which were weak or ready to fall apart after sawing were also wrapped. This also served to hold them together until they reached the Tree Ring Laboratory in Tucson.

As each piece was cut by one individual, one, or more often two, individuals followed behind dragging a tape measure. The cut piece was measured for length and width and its location measured to the nearest datum. One of the cut ends (or a side if only one end was cut) was labeled with the site number and the designation "D-" followed by a consecutive number from 1 to 20. The location and number were then entered into a notebook and the branches were replaced to their original position if necessary.

Upon moving to the Clover Trap it became immediately apparent that the hand saw was totally inadequate to sample the range of branch and trunk sizes present in the walls. It was decided then that a chain saw was necessary to complete this work. In fact, it was found that even the smaller branches were generally better and easier to cut with a chain saw. There was less stress on the wood (and the cutter). Switching to a chain saw did hasten the sample collection procedure, but the extreme hardness of the wood (after curing for 100-200 years) and the large amount of dirt collected in a juniper branch and trunk's bark as it grows served to slow down and make work with even a high quality chain saw difficult. The saw had to be sharpened twice and, in many instances, almost did not get through the wood. This difficulty prompted collection of samples where only one or no cuts were necessary. The Tree Ring Lab makes new cuts with a table saw anyway, so such a procedure did not in anyway affect the quality of the samples taken.

### III. RESULTS

This section will detail the description of the seven trap walls (it will narrate the field notes which are to be found in the separate appendices), and provide some information on the tree ring analysis. The tree ring analysis information and data can be found in Appendices A and B.

#### Antelope Trap Wall Descriptions

##### Tobar Trap (CRNV-11-3336)

Datum B to A) At the north end of the north wing the trap wall consists of widely spaced single ax cut juniper limbs. The limbs average 1 to 2 meters apart and 30-40 cm long by 2 cm thick. Near datum A the density and size of branches increases with an average of one meter between limbs.

Datum A to C) Along this section some of the limbs appear to have been axed and torn off. Branches are 50-100 cm apart and average 100-120 cm long by 3-5 cm thick. The wall width here is about one to three meters because of natural collapse. There are about 13 upright limbs stuck in the ground along this section.

Datum C to D) This is the area which crosses the road. Limbs are very closely spaced with about 16 uprights present. The uprights are deeply buried and very intact. A definite pattern of upright spacing, or pairing was not evident. Limb size averaged 50-100 cm by 3-7 cm in diameter. Near the central part of this section the limb spacing was greater (average 125-165 cm apart).

Datum D to E) This is a sparser alignment of limbs with largely individual small limbs remaining from 20-30 cm apart up to many meters apart. All of the limbs appear to have been torn off in this section. The average length of limbs in this section is 60 to 90 cm with diameters averaging 5 to 18 cm. There were four uprights along this section.

Datum E to F) The trap wall follows a ridge line and it has more gaps with smaller and shorter limbs than those previously described. Some areas show no evidence of wall alignment. Many of the limbs are ax cut in addition to many which are torn off. At 33 m from E there is a break in the wall to 41 m. Limb spacing averages 2-3 m apart. Limb size averages 30-80 cm long by 4-8 cm in diameter. There are 10 uprights along this segment. There were two sets of paired uprights.

Datum F to G) Branch size and diameter continue similar to the last section until 35 meters past F when spacing of branches thins to 1-2 meters with sizes averaging 3-5 cm diameter by 50-70 cm long. Most are torn off, a few possibly ax cut. By 87 meters the branches thin to 1 meter apart with small clusters found here

and there. Only one upright was noted on this stretch.

A stump area lies off to the southeast of the trap in this area and exhibits living and dead trees with torn off and ax cut branches. There are about 20 to 40 affected trees in the area. Presumably these are some of the source material for the walls. An isolated potsherd was found in this area.

Stump area #2 (designated as juniper grove on the map) was found south of the other grove of juniper trees and contains a few more trees which have torn off and ax cut branches along with one burned out stump near the north end of the grove.

Datum G to H) There is a vegetation change along the wall in this section. There is a corridor 10 meters wide with higher sagebrush in the corridor and a higher density of rabbitbrush outside of it. There is a moderate density of ax cut and torn branches with very few uprights along the southeast side. Juniper limbs in this area are short and intermixed with live and dead sagebrush. Limbs average 2 or more meters apart and average in size 40 to 70 cm long by 4-6 cm in diameter. There is a very light limb scatter where livestock have dug. Six uprights were found in this section. One was paired.

Datum H to I) Branches in this section average 1-2 m apart with limbs averaging 30-60 cm long by 4-6 cm thick. Two uprights were found in this section. There are definite gaps on the slope of the ridge. Near the drainage the alignment is more defined with longer and thicker limbs. On the north slope of the wash the wall again fades and is poorly defined with a very light scatter of limbs and a few uprights.

Datum I to J) Along this section the wall becomes more defined with more numerous and closer together limbs. However, branches are short and very weathered. The average length of limbs here is about 70 cm long by 7 cm thick. Spacing of limbs averages 0 to one meter apart. There are some two meter long by 11 cm thick limbs closer to J. Two overlapping torn off limbs were also found. The remainder of the ridge before the wing opening is well-defined. The limbs are generally ax cut or torn off.

Datum J to K) The wall is well-defined here with ax cut, torn and burned out limbs. About 12 uprights were noted here-2 of which were paired. Averaging spacing for limbs is 0 to 50 cm. Average sizes of limbs are 40-100 cm long by 4-6 cm thick.

Datum K to L) This is the northwest wing of the trap. It is short with some large branches (up to 3 meters long by 13 cm in diameter). Most of the limbs are parallel and closely spaced. Spacing averages less than 50 cm and sizes average about 100 cm long by 5 cm thick. One upright was noted here.

## Clover Valley Trap (CRNV-11-3350)

Datum A to C) This is a short wing segment and is defined by short limbs spaced two to eight meters apart. The wing includes a total of three limbs. They were torn off. Two of the limbs measure 100 cm x 6 cm and 11 cm x 3 cm.

Datum A to D) The wall in this section is better defined by medium to large forked limbs spaced between 0 and 200 cm apart. These limbs measure between 25 and 140 cm long and about five to six cm in diameter. They are arranged both parallel to and perpendicular to the wall orientation. About 20 meters south of datum A is a small sandstone boulder measuring 25 cm by 30 cm above ground. About 3 to 4 meters further is another sandstone boulder measuring 32 by 22 cm. The former boulder is adjacent to an upright post which probably functioned as a support. Another upright limb occurs 4 meters to the south. It was originally removed by burning to be placed here.

About 40 meters south of datum A is a cluster of five short limbs (all about one meter long) which are aligned perpendicular to the wall indicating that these were upright originally and collapsed toward the inside of the corral. The method of obtaining wood was by both tearing off and burning. About 55 meters south of Datum A is a short alignment of rocks not associated with uprights.

Datum D to E) and E to F is a portion of the corral which contains a double wall. Datum D is the northern intersection of wall #1 (main wall) and wall #2 (auxillary wall). The main wall in the area between D and E is characterized by torn off limbs spaced 0 to 50 cm and measuring from 25 to 120 cm long by 3 to 12 cm in diameter.

Datum E to F) on the main wall is characterized by closely aligned medium to large 'forked' limbs and trunks, some of which are parallel, but most of which are perpendicular to the wall orientation. Some are also stacked or at least overlapped. Most appear to be torn off, although about 2 to 10 may have been burned. The range of lengths of limbs is between 25 and 206 cm while the diameters range from 6 to 10 cm. Spacing between limbs is 0 to 50 cm.

Note- the collapsed pattern of the limbs indicates that originally they were probably criss-crossed in a semi-upright (leaning) position- could have been 'lashed' together.

Several ax cut 'V' cross section limbs occur near datum F. Near datum F there were definite juniper trunks with diameters of 25 to cm. Three trunks have definitely been 'burned out'.

### AUXILLARY (OUTER) WALL (Wall #2)

Datum D to S6 (wall shot)) In general the auxillary wall is constructed from shorter and narrower diameter limbs. These are arranged in all directions. Towards the south end of this section are pairs of rocks and single rocks aligned along the

wall which probably represent 'post supports'. While there were a large number of boulders found along this segment and that segment further south (S6 to Datum F), no definite spacing, size or pairing pattern was discerned with the boulders and uprights.

Between D and S6 there were at least 71 boulders and cobbles that appear to have been part of the wall alignment. There were many isolated rocks and some with up to 4 or 5 boulders, but the most common cluster was of paired rocks. There were 9 paired rocks, several of which had at least an upright limb nearby strongly indicating that the paired boulders were used as supports for uprights. Almost all of the boulders and cobbles were made of either quartzite or sandstone. The range of sizes was from 12 cm by 7 cm up to 37 cm by 27 cm in size. Most measured in the 20 to 35 cm diameter size range. The spaces between the paired rocks ranged from 10 to 50 cm with the average interval at 15 cm. The range of distances between rocks along the wall was from 50 cm to as much as 13 meters. A scatter of limbs also occurred with the boulders in this area, though they were much sparser and more weathered than along the main wall. It appears that this may have been an older wall that was, perhaps, partially salvaged for constructing the adjacent new one. Also, it is interesting to note that this outer wall showed the presence of upright limbs and many boulder supports for upright limbs, whereas the inner wall appears to have been built more in a 'stacked' manner without use of uprights. Limbs along this section of the D to S6 wall ranged from 158 cm by 5 cm down to 13 cm by 5 cm. Limb spacing ranged from 0 cm up to 100 cm. The primary felling method appears to have been tearing.

#### AUXILIARY (OUTER) WALL 2

From S6 to datum F) Along this section of the outer wall there are fewer boulder supports and limbs. The wall becomes very faint along this section with more spacing between supports (or presumed supports in some cases since the presence of boulders does not ALWAYS indicate supports for uprights). There were 12 boulders counted along this section with only one cluster of rocks- 3 occurred (2 sandstone and 1 quartzite) with a limb. Spacing between boulders is 50 cm up to 8 meters. Limb sizes ranged from 10 cm by 3 cm up to 60 cm by 5 cm. The main method of felling was tearing.

5) From datum F to H. From datum F west-northwest for 30 meters the alignment is not as well constructed. Limbs are spaced 50 cm to 100 cm apart and are smaller (not as many juniper trunks; several minor drainages flow northwest and have disturbed portions of the wall; this portion of the wall is along the flat ridge top). Two isolated rocks were found in this segment. One is a 25 cm x 25 cm sandstone boulder with 2 large limbs within 40 cm of it. The other is a 37 cm x 22 cm sandstone boulder with several limbs within 50 cm of it. The vegetation starting 35 meters southwest of this portion of the wall is much lower than most other areas and consists of sparse sagebrush. For the most part, the branches and trunks between datum F and H lie perpendicular to the wall orientation. The distal ends lie on

either the north or south sides. Therefore, presuming that the distal end (or in many cases the trunk) of branches were pushed into the ground, then the branches and/or trunks appear to have 'collapsed' both inward and outward. The limbs range from 18 x 4 cm up to 285 cm x 28 cm. Spacing between limbs ranges from 0 to 100 cm. Most limbs along this segment of wall (90%) are torn off, 10% are burned.

From datum H to I) Along this segment most limbs are perpendicular to the wall alignment. Limbs are spaced 0 to 2 meters apart and measure between 30 x 7 cm and 230 x 24 cm. There is an 18 meter break in the wall where it crosses a small wash at the north end of this segment. Felling methods include about 80% torn off and 20% burned.

Between H and I is a juniper grove in which all of the juniper trees have had most of their branches torn off. Only bare trunks remain in the area within and outside (to the south) of the enclosure. Trunks from one to 3.5 meters in length. All branches inspected south of the enclosure on the slope of the ridge had been 'torn off'. There were over 20 trunks, all of which are bare.

From datum I to J) Along the west wall the limbs and trunks are very large and the majority are aligned parallel rather than perpendicular to the wall, and probably were not positioned 'upright'. The limb measurements range from 295 cm x 26 cm to 39 cm x 7 cm. Spacing of limbs are 0 cm to 100 cm. Felling methods include both ripping and burning. This area of parallel aligned large trunks and branches extends to datum J.

From datum J to K) Starting at datum J it appears that about one quarter of the limbs are parallel and three quarters are perpendicular to the wall. Also, limbs are smaller. Spacing is still fairly close together. No uprights were observed along the wall here. Limb measurements range from 25 x 3 cm up to 20 cm x 275 cm. Spacing between them ranges from 0 to 50 cm. Felling methods include both ripping and burning.

From datum K to L) The segment lies at the base of a ridge slope where a majority of branches are short to medium and are perpendicular to the alignment. The range of limb measurements is from 15 cm x 5 cm up to 14 cm x 213 cm. Spacing ranges from 0 cm up to 300 cm. One rock alignment 4.5 meters long occurs within this segment. It includes 10 rocks (2 quartzite and 8 sandstone) with 0 to 150 cm spacing between them and ranging in size from 10 x 16 up to 35 x 20 cm. There was also an isolated quartzite rock measuring 30 x 26 cm. There was also one set of five rocks in a circular pattern. Near datum L sagebrush is tall and dense and wall material is very intertwined and lies largely parallel to the wall. The wall fades out near the end of this section close to datum L.



South Dry Lake Flat Trap (CRNV-11-3338)

This trap is located on the east edge of Ruby Valley. The vegetation within the trap is very low sagebrush and Indian rice grass. A conspicuous isolated juniper tree occurs within the trap at datum B. To the south of the trap is a moderate sized juniper grove- most trees have been foraged and have grown back.

Datum A and C) This is the north (or west) wing and is a very difficult area to determine the nature of the alignment configuration. It extends south along a drainage and is evidenced by very scattered limbs. It appears that datum A is where the north wall turns abruptly into a wing segment. There is a very short segment here which appears to extend to a small shallow wash where it is obliterated. The wall/wing area between datum A and the wash appears to be reinforced with more and larger limbs. Across the wash this line of limbs does not appear to continue. However, there are two juniper limb alignments on the west side of the wash apparently not directly related to the wing (though they may have once been). The northernmost one (directly west of datum A) contains 5-6 limbs and is about 22 meters long. The southernmost one is about 20 meters long and also contains 5-6 limbs. The limbs range from 124 x 7 cm up to 130 x 12 cm. Spacing of limbs is 0 cm up to 10 meters (see map).

Around datum C (which at one time was thought to be the end of the north wing) there are three probable juniper piles, possibly once used to help close the entrance to the trap. They are all on the west side of the wash. The southernmost one (1) is about 5 meters in diameter and includes about 8 limbs and 10 splinters of limbs. Pile 2 at datum C is about 3 x 6 meters in size and contains 15 to 20 limbs. Pile 3 is 2.5 m x 5 m and contains about 12-15 branches.

Datum A to D) Fifteen meters north of datum A the alignment turns to the NE and continues. The wing is well constructed from datum D to A. The limbs in this area have collapsed in a criss-cross pattern for the most part and the wall is about 1.2 meters wide. Most are torn off and some are burned out. The overall wall alignment pattern is semi zig-zag. The limbs have collapsed parallel and cross-wise. The majority have been torn off of trees, about 2 percent are ax cut, and about 3 percent are burned out. The east portion of the north wall is a little straighter and has longer limbs (up to 2.5 meters) that are arranged in a criss-cross pattern. This pattern is only distinct in a few areas. There were no upright posts observed or rock 'post supports' observed between A and D. The wall is a single alignment with no indications of outer walls or other adjacent features. Limb measurements include a minimum of 4 x 25 cm and maximum of 16 x 285 cm. Spacing of limbs is 0 m up to 50 cm. There were two short gaps in the wall in this section: one is 11 meters and the other 9 meters.

From datum D to F) It is apparent that larger and wider limbs and juniper trunks were employed. The limbs range from 14 x 3 cm



up to 303 x 18 cm. Spacing is between 0 cm and 3 meters. Along a portion of the wall it appears that cattle may have been responsible for some movement of limbs. Also, most have been burned out, though a few appear to have been torn off. This segment of the wall is adjacent to a grove of standing juniper, so that materials would not have to be dragged far. Most of the limbs and trunks are parallel to the wall and a curved, rather than zig-zag pattern is represented along the alignment.

From datum F to G) The wall alignment is similar to that from D to F. A second grove of trees occur on the ridge slope, thus larger branches could be procured in incorporating materials into this east segment. The standing junipers were also used in the wall and dead branches can still be observed leaning against live trees. There are five live trees standing in the wall. Limb measurements range from 17 x 6 cm up to 300 x 34 cm. Spacing is 0 to 50 cm. Most limbs were ripped off, some burned. Close to datum G there occurred two paired conglomerate boulders in the wall covered with lichen and moss. They measured 16 x 20 and 26 x 20 cm. Overall the area the two occupy measures 45 x 25 cm. Whether they were used as part of the wall construction is not clear.

From datum G to H) There is a short gap about 12 meters south of datum G (on top of ridge). This could have been an entry way (7 meters wide) where branches were removed to allow vehicles to pass through in recent years. Between G and H the wall curves somewhat with limbs measuring 17 x 4 cm up to 240 x 20 cm in size. Spacing is 0 to 50 cm and felling methods are primarily tearing. Branches are arranged parallel, criss cross and perpendicular to the wall. It is possible that the wall was constructed from 'tipi type' clusters or 'forked' clusters since in some areas medium length clusters of collapsed limbs occur. The wall turns SW at the SE corner about 38 meters from datum H.

From datum H to I) The timbers used along the south wall are large and wide limbs and trunks spaced closely together, in many cases overlapping. The wall is a little straighter than those previously described. Several upright trunk segments (which were transported to this location) were observed resting on their proximal ends. Also, a number of live juniper trees with branches removed were incorporated into the southern wall. Limbs range in size from 2.5 cm x 15 cm up to 25 x 360 cm. Spacing between limbs is 0 cm to 1 meter. Felling methods include 85% ripped, 15% burned. At a turn in the wall about half way through the section there is a once live tree (now dead) incorporated into the wall.

From datum I to J) the wall incorporates very large trunks and limbs, most over 2.2 meters long. Most are piled and two limbs thick. They are mainly stacked parallel to the wall. Four large upright dead trunks occur along this segment. Limbs along this segment of the trap measure from 5 x 21 cm up to 3 x 345 cm. Spacing between them is 0 to 100 cm. Felling methods were mostly ripping with some burned, especially with the larger pieces. A

grove of trees occurs midway along this segment and about 20 trees have been foraged for trap wood. A few of the standing live junipers have been incorporated into the wall.

From datum J to K) This is the beginning of a very long southern wing wall. Between J and K it is represented by narrow small to medium limbs spaced 0 to 100 cm apart. Limbs measure from 4 x 27 up to 10 x 245 cm. None have been stacked and they were probably upright originally.

Beyond K the wall becomes much more faint, but does cross the wash and continue for almost 500 meters beyond K to the west. Limbs are quite sparse here ranging from 0 cm to 20 meters apart. Sizes range from 4 x 32 cm to 139 x 12 cm. The wall generally follows the land contours and goes through winterfat areas. It appears that the area may be seasonally washed through.

#### North Dry Lake Trap (CRNV-11-3337)

From datum C to A) is the north wing of the trap which consists of very dispersed small to medium narrow limbs (average length 80 cm.). In some areas there is 5 meter spacing between single limbs. The limbs are collapsed in every cardinal direction. The wood is very weathered. The scarcity of wood along this wing wall is similar to the situation found at other traps. The limb measurements along this segment range from 20 x 3 cm up to 195 x 10 cm with a spacing of 0 up to 5 meters. The felling methods appear to have been tearing.

From datum A to D) along the west side of the trap the wall is better defined than along the wing. Limbs are still small to medium and from 1 cm to 1 meter apart and oriented mainly diagonally to the wall. Most have been torn off. In the area closer to the main road only small fragments occur. The larger pieces were probably picked up for firewood in recent years. North of the main road near datum D the wall is well defined with larger 1 to 1.5 meter limbs which overlap and/or occur in clusters. The actual range of limb sizes are 2 x 25 cm up to 182 x 10 cm. In this wall segment there are eight live juniper trees and numerous dead, but intact, stumps. The stumps have probably been burned out although torn off branches are also evident. They project 10 to 50 cm above ground surface.

From datum D to E) The wall segment is well defined by closely spaced medium sized limbs (ranging from 3 x 25 cm up to 18 x 164 cm with 0 to 2 meter spacing). The majority lie diagonal or perpendicular to the trap alignment. About 80 percent have been torn and 20 percent show evidence of burning.

NOTE: The BLM Archaeologist identified an outer wall alignment from about datum E to the N-S two track road from an aerial photo. Careful ground inspection resulted by both the field team and the BLM resulted in locating no 2nd wall on the ground. It may have been an older wall that no longer exists.

From datum E to F) The majority of the wall limbs lie diagonal (often criss-crossed) to the wall alignment. They are spaced fairly close together. The range of measurements is 3 x 13 cm up to 2.25 x 24 cm with 0-1.5 meters spacing. There are several wide zig-zags in this wall segment. Only a few are cut limbs, most appear to be burned off or torn off. On the east and west sides of the two-track the wall is disturbed. Limbs are scattered. The wall thins out about 30 meters west of datum F- very scattered limbs here. One set of paired rocks occurs in this section (made of sandstone) which are 5 cm apart and measure individually 38 x 20 cm and 10 x 10 cm. An upright occurs within 15 cm of them.

From datum F to H) At datum F the wall turns to 135 degrees. It is still sparse. About 30 meters SE of datum F the wall becomes more distinct. Limbs average medium length (1 to 1.3 m long) and range from 3 x 18 cm up to 10 x 244 cm with 0 to 2 m spacing. Some limbs are clustered and overlap. In some areas the wall is one meter wide. Near the main road the wall disappears and only small fragments remain, likely because the larger pieces were collected for firewood. The main felling methods were burning and tearing.

From datum H to I) This segment is similar to others, though it is somewhat straighter. Limbs in this segment are spaced closer together, with some overlapping. They lie in diagonal and perpendicular orientation. An upright post occurs about 80 meters south of datum G and is 20 cm above ground surface. Most of the limbs are burned out or torn off. The wall curves towards the SW 60 meters NE of datum I. The range of limb measurements are 2 x 15 cm up to 10 x 228 cm with 0 to 1 m spacing.

From datum I to J) Many larger limbs were used on this segment. Between I and J the average length is 1.7 meters with the smallest being 2.5 cm by 16 cm and the largest 2.46 cm by 20 cm. Spacing is 0 to 1 meter. The wall has collapsed in all directions. Most of the limbs, however, are oriented diagonally.

From datum J to K) The wall is fairly straight. Quite a few of the larger limbs are parallel, a few limbs are distal end to distal end. At datum K the wall segment fades out. Only a few limbs represent a wing wall extending several meters in a 230 degree direction. Limb measurements along this segment were between 2.5 cm x 11 cm and 10 cm x 3 meters with 0 to 50 cm spacing. The main felling method is tearing. Also some burning. (30%).

From datum K to wing end) This is a short segment with limb ranges of 3 x 21 cm up to 6 x 168 cm and a spacing of 3 cm to 50 cm. Most of the wood is small limbs and splinters. One limb was cut, the remainder were ripped.

A cluster of seven burned limbs occur near the center of the trap oriented north-south and consists of a curved segment of burned off short juniper limbs 2.2 meters in length. This is a possible

hunting blind. There is also a burned stump about 12 meters east of this probable blind.

Most of the wood procured for the trap was taken from the grove of standing juniper along the north side of the trap. There are also more than ten dead stumps in this area which have been burned out. Limbs were also taken from several small clusters of juniper along the west and east edge of the trap.

#### Ruby Wash Trap (CRNV-11-142)

From datum A to B) This is the east wing. Construction of this wing consists of collapsed very scattered limbs. The limbs form a single alignment and are not branched. Most measure about 1 meter in length. The range is 3 x 30 cm up to 24 by 170 cm. Spacing is between 10 cm and 5 meters. The primary felling technique was by ripping.

From datum A to C) At datum A the wall incorporates two live juniper trees. Starting at datum A very large trees (ranging in size from 3 x 50 cm up to 30 cm by 5.8 meters and averaging 3.15 m long by 40 cm diameter) are aligned in a parallel row and touch one another. Most appear to have been burned out. The longest tree is had a pack rat nest in it. On the south side is a foraged grove of juniper with dead stumps exhibiting torn branches. Near the middle of this segment is an alignment of end to end juniper branches and trunks. There is evidence that the limbs and trunks were stacked, perhaps one meter or more high. In some places they have collapsed in parallel piles.

From datum C to D) Most of the trees and branches in this area are very branchy. These are also arranged parallel to the wall. All appear to be torn off. Some are burned as well. Small branches one meter in length also occur in low piles between larger limbs. The shorter limbs lie diagonally and were probably upright. The shorter branches are intertwined with larger trees and were probably originally propped up against them. The limbs range in size from 2 x 45 cm up to 14 cm x 310 cm. Spacing is 0 cm.

From datum D to E) There is a gap of about 100 meters with only a few small pieces of wood designating the original wall. This wood was probably taken by locals. A few of the small pieces have been ax cut. When the wall once again is evident, it is quite intact. One area near datum E displays overlapping wall construction (70 cm high). All limbs are stacked parallel. Limb sizes are from 2 x 40 cm up to 20 x 390 cm. Spacing is 0 to 50 cm outside of gap and 10 to 20 m meters within the gap.

From datum E to F) This segment contains the largest grove of live junipers around the trap. Some of the junipers have torn off branches. In this area several large limbs were found propped up against a live juniper. The same wall pattern from D to E is displayed in this segment except more live trees are

incorporated in the wall. Limbs range in size from 3 x 40 cm up to 50 x 380 cm with spacing of 0 to 14 meters. The primary felling method here was tearing.

From datum F to G) At datum F is a pack rat midden at the base of a live tree. About 15 meters west of datum F is a good example of how the branches are stacked. One upright has fallen diagonally over a parallel dead tree. Between datum F and G fewer branches were used to construct the wall and for the most part they are parallel and lie as single limbs. Near datum G the wall is constructed of denser trees and limbs. In this one the limbs are medium length (1.7 meters) and have fallen criss-cross and diagonal. Most overlap. These were probably upright and most are torn off and a few burned off. Limb size ranges from 13 x 57 cm up to 14 cm by 2 m. Spacing is between 0 and 4 meters.

From datum G to H) The limbs and trunks in the section are large and closely spaced. Near datum G they have collapsed inwards toward the trap center. Near datum H are a number of large dead trees (once live) incorporated in the wall. One was a tree placed upright- proximal or root end pushed into the ground. The tallest tree is 2.5 meters. In between the standing trees are parallel overlapped limbs. The bases of the standing dead trees are burned out. Only one axed out tree (cut in two different directions) was found in the wall. The limb size range was from 3 x 40 cm up to 20 x 290 and 50 x 214 cm. Spacing was from 0 cm up to 1 meter.

From datum H to I) The wall consists of mainly parallel limbs. One to 3 limbs thick, spaced close together, no uprights. The wall is on a flat ridgetop. The limbs are torn off with few burned ones. Compared to other wall segments, these limbs are straight. A few are forked, but not branchy. Near to datum I on top of the ridge larger trunks were used and have been arranged parallel to the wall. Limb sizes range from 5 cm by 30 cm up to 50 cm x 305 cm. Spacing is between 0 and 50 cm.

From datum I to end) This is a small north wing measuring about 16 meters long. Limbs are widely spaced (between 75 cm and 10 meters) and range in size from 2 x 40 cm up to 5 cm x 150 cm.

In summary, site 142 is a well-preserved antelope trap situated in low and medium sagebrush with snakeweed. The juniper groves occur along the SE and south side of the trap. A few junipers occur inside the trap. The walls appeared to have been constructed from large (2 meters +) or medium sized juniper limbs which lie (largely) parallel. Some have collapsed diagonally into the trap. These were probably originally upright, in some cases propped up against parallel limbs and trunks. Along the west wall trees were placed upright-root end at ground level. Parallel limbs are spaced between the upright trees. The majority of the limbs have been torn off, only two have been axed. The larger limbs and trunks have been burned out.

#### Currie Hills Trap (CRNV-11-3334)

From datum A to B) The majority of limbs lie perpendicular or diagonal to the wall alignment. These overlap and were probably upright. The range of limb measurements are 75 x 5 cm up to 7 cm x 105 cm with 0 to 50 cm spacing. Some are burned, and a few are ax cut. They are all very weathered. The ground is very soft in this area. It would have been easy to push the branches into the ground upright without the aid of boulder support. Only two short uprights were observed in-situ. In some areas the limbs are very closely placed and collapsed diagonally. The majority appear to have fallen outward since the distal (or widest) portion of the limb lies toward the interior of the trap.

From datum B to C) The limbs are arranged either perpendicular or diagonal to the wall segment. They are not as closely spaced as the previous section. They range from 50 to 100 cm apart. One upright (11 cm above ground surface) and one small boulder occurred about 45 meters east of datum B. The boulder did not support the upright. About 20 percent of the limbs have been ax cut. Others are torn off or burned. Eight meters west of datum C are three small boulders near a live juniper with three narrow fallen limbs. The boulders are in an alignment and measure 86 cm long as a whole with 5-10 cm between them. Two are made of gneiss and measure 32 x 19 cm and 30 x 20 cm. The other is made of gray andesite and measures 23 x 44 cm. Limbs along this section measure between 35 and 80 cm long by 3 to 5 cm wide.

From datum C to D) This segment is very similar to the previous segment in limb size and spacing. At 17 m east of datum C a pair of cobbles occurred not associated with limbs. The two andesite cobbles measure 11 by 17 cm and 10 by 17 cm and have 9 cm between them. At 22 m an andesite boulder occurs measuring 38 x 27 cm at the north edge of the wall. It is not associated with a limb. Another boulder of andesite was found further along with an upright occurring on its south side. The boulder measures 40 x 25 cm. The upright is 8 cm above ground level. Seven additional uprights occur along this segment.

From datum D to E) Limbs along this segment are sparser than previously. They range from 2 cm x 10 cm up to 7 cm x 80 cm. The spacing ranges from 0 to 100 cm. There is a gap of wall limbs from datum D south about 26 meters. At this point there is a single small basalt boulder. At 50 meters there is another small boulder. Another boulder occurs along the alignment south about 10 meters. On the crest of the ridge is an upright projecting 25 cm above ground surface. Only a scatter of very thin limbs occur in this area. Sixty meters south of datum D begins an alignment of boulder post supports. There are about 27 boulders along this alignment from 64 meters to 94 meters south of Datum D. They are all andesite and range in size from 19 x 24 to 45 x 45 cm. At least four uprights occur with the boulders. The alignment is situated primarily on the slope of the ridge. The boulder support occurs mainly in clusters of three or four with single and double collapsed limbs. It was probably essential to use

boulders (which occur naturally on the slope) to support limbs since the ground is hard.

From datum E to F) The wall segment occurs mainly with a drainage and limbs have been subject to water erosion. There is a large grove of juniper on the south side of the trap. Very few stumps occur. Apparently only the limbs were dislodged for use on this trap. Limb size ranges on this segment are 50 cm to 1.5 cm long by 2 cm to 5 cm in diameter. Spacing is from 0 cm up to 3 meters. On the southeast ridge slope is another alignment of upright posts against single and paired small basalt boulders. These uprights extend from datum F east for about 25 meters and to the west for about 12 meters. The number of boulder supports per upright vary from one to five. Most supports, however, are paired. Twenty six boulder support clusters occur in this area. Rock clusters are spaced an average of 1.9 meters apart and range from 1.6 meters to 2.5 meters apart. The post and rock alignment continues 25 meters NW of datum F.

From datum F to G ) The segment extends across the top of the ridge. Eleven uprights are set into the soft ground and lack rock supports. The majority of the collapsed limbs are spaced fairly close together and occur perpendicular and diagonal to the wall. Most limbs are torn off. About 10 percent have been ax cut. Burned off ones also occur. Midway between datum F and G the wall has few limbs which are scattered. Several uprights also occur in this area. Single boulders occur periodically. There are about 8 andesite boulders in this segment ranging in size from 12 by 12 cm up to 33 by 20 cm. Limb sizes and spacing is very similar to the E to F segment.

From datum G to H) This is the south wing represented by a small scatter of short limbs. The limbs are smaller here and range from 50 to 80 cm long by 2 cm in diameter. They are about 100 to 200 cm apart.

From datum A to L) This is the north wing wall, the longest wing. From A to L the wall is fairly distinct and consists of short to medium narrow limbs, most lie perpendicular or diagonal to the wall alignment; very few overlap. Sizes of limbs are 110 to 130 cm long and 3 -5 cm in diameter. Spacing is between 0 and 2 meters. Two paired boulders and two isolated boulders were found on this segment.

From datum L to M) The wall turns towards the SW and is represented by short to medium limbs spaced apart (0 to 5 meters) and somewhat scattered. Three single boulders are present with no juniper in association.

From datum M to N) This is a faint portion of the wing. It consists of very small, split fragments of junipers which fade out toward the end. Spacing of limbs and fragments is from 50 cm up to 100 cm. Limbs are generally 35 - 50 cm in length and 2 cm in diameter.



From datum N to end of wing) This is an extremely faint and tenuous segment of the wing wall. Limbs occur widely spaced (5 to 10 meters apart) and range in size from small splinters up to a few as much as 80 cm x 3 cm in size. There were also as many as nine cobbles found along this segment of the wing, though whether they are even related to the wing construction is not known. They ranged from 14 cm by 14 cm up to 75 x 34 cm. All were of andesite.

The wall construction of this trap was fairly consistent. Only branches from juniper trees were selected and these limbs for the most part were fairly straight. About 20 percent were forked. The limbs were small to average in diameter and ranged in length from about 50 cm to 2.5 meters. From the way the limbs collapsed it is apparent that they were placed upright in closely spaced rows. The majority of the limbs had fallen inwards to the trap and remained perpendicular or diagonal to the wall alignments. Quite a few (estimate 20 percent) have ax cut proximal ends, most of which were cut in a 'V'. Limbs cut in this pattern could easily be placed into the ground. Torn off limbs were dominate, and burned off limbs were secondary in frequency. Remnants of upright limbs, supported by small basalt boulders, were common along the SE portion of the trap, especially along the slope of the south ridge. About 25 uprights and single and paired and clustered (more than 3) boulders were observed (all basalt). Other single and paired boulders were also seen periodically along other wall segments.

#### Cobre Trap (CRNV-11-3335)

From datum A to C) At datum A is the corner of the wing of wall 2 (extension). At this point the wall turns to a 300 degree axis. Two ax cut branches occur at this corner. The remainder of the branches are torn off. The limbs along this short wing are spaced from 50 cm to 2 meters apart. About half are aligned parallel to the wall and the other half are collapsed diagonal and perpendicular to the north wing wall. The majority have fallen to the N and NE. They are narrow, averaging 7 cm in diameter and range from 70 cm to 1.6 meters in length. The majority are ax cut; cut both diagonally and 'V' shaped. Two projectile points were found near the end (datum C) of the wing.

2) From datum A to D is the more recent trap wall. From datum A toward the NE the limbs are aligned parallel to the edge of the railroad bed disturbance zone. No trap walls could be discerned in this railroad disturbance area. The younger wall picks up again about 20 meters NE of tracks, but the limbs are small and sporadic showing both older and more recent wall. At about 7 meters NE of two track the newer wall becomes very defined. The wall in this area is represented by mainly criss-crossed clusters of limbs. The limbs range in size from 11 x 3 cm up to 100 x 6 cm. The spacing of limbs is 2 to 8 meters in this washed out area. The majority are torn off and only a few are burned out and/or axed. The limbs have fallen both inward and outward.



Originally they were probably crossed or forked upright.

From datum A to D) is the more recent trap wall. From datum A toward the NE the limbs are aligned parallel to the edge of the railroad bed disturbance zone. No trap walls could be discerned in this railroad disturbance area. The younger wall picks up again about 20 meters NE of the tracks, but the limbs are small and sporadic. At about 7 meters NE of the two-track the newer wall becomes very defined. The wall in this area is represented by mainly criss-crossed clusters of limbs. The limbs range between 3 x 22 cm and 14 x 132 cm and are spaced 0 to 200 cm apart. About 55 cm south of datum A there is a short alignment of two sandstone rocks 3-4 meters apart. They are 30 x 25 and 32 by 22 cm in size. No uprights were in association with them. The majority of limbs in this segment are torn off and only a few a burned out and/or axed. The limbs have fallen both inward and outward. Originally they were probably crossed or forked upright.

From datum D to E) At datum D the newer and older walls converge. An alignment of short uprights define the older wall. The wall is defined by a very dense alignment of limbs. These have collapsed and are arranged parallel, diagonal and perpendicular to the wall. Most range from 25 cm to 120 cm in length and 3 to 12 cm in diameter. Spacing is between 0 and 50 cm. The felling method here appears to have been primarily tearing. At about 30 meters NE of datum D a single small basal boulder occurs within the alignment. It appears that the longest limbs are aligned parallel to this wall segment. At about 50 meters NE of datum D are two crossed upright limbs. This is an excellent example of how the original wall was probably constructed, at least along this segment of the trap. These paired limbs extend 1.1 meters above ground surface. Other collapsed limbs to the NE also cross. The longest limb along this segment of the wall is 2.6 meters. Several of the limbs are semi-upright and tilting to the SE.

From datum E to F) Beginning about 35 meters east of datum E live juniper trees begin to be incorporated into the trap wall. Several tilted uprights occur in this area. The soil is very soft (fine sandy silt) and limbs could easily be placed upright in the sandy area. The major wood source for the trap construction occurs along the NE side of the trap. The trap was built on the very edge of this grove and, as stated above, the peripheral junipers were incorporated into the wall. Only a few dead trunks were observed in this grove. For the most part the extending narrow limbs were probably detached from the tree and placed upright along the trap wall. Midway between datum E and F is a row of upright limbs. This segment of uprights range from 70 to 110 cm above ground surface. The entire row of uprights is 40 meters long. They lean in several directions. The limbs in between have mostly collapsed diagonally to the wall. They range in size from 3 x 17 up to 16 x 230 cm and are spaced 0 to 50 cm apart. The majority of limbs have been torn off. Others are burned out.

From datum F to G) At datum F the limbs are a bit scattered; perhaps due to deflation. A high sand dune (1-1.2 meters high) occurs along the east edge of the trap. About 40 meters south of datum F is an upright pair of crossed or forked limbs. One is forked and a single limb sets within the fork. These were placed within the sand dune. This wall segment has a dense alignment of limbs. About 40 are semi upright (crossed). The limbs are narrow and range from 7 x 50 cm up to 6 x 195 cm. Spacing is from 100 to 350 cm. It again appears that they were arranged with a straight limb secured with a forked limb. All along the wall the soil is sandy. Other limbs incorporated into the wall (but not put upright) ranged in size from 3 x 20 cm up to 10 cm x 250 cm. with spacing of 0 to 2 meters. Felling techniques include both ripping and burning with a few ax cut.

From datum G to H) The first half of the wall segment is similar to the above with tilted uprights occasionally occurring. One live tree occurs about 50 meters south of datum G. The limbs in this segment are spread further apart. It should be noted that dead juniper wood occurs along this wall segment with dead juniper limbs incorporated naturally into the wall. The majority of the collapsed limbs are situated perpendicular and diagonal (no ax cuts were observed). A few long branches (1.7 m) were placed parallel to the shorter perpendicular limbs. Because of the dense sagebrush clustered along this segment of wall, the alignment is difficult to see from above the ground. Limb sizes along this section are between 8 x 16 cm and 18 x 240 cm with spacing of 0 to 3 meters.

From datum H to K) This is a N-S aligned wing wall. It is defined by a scatter of short to medium (70 to 110 cm long) limbs. Most are arranged or collapsed diagonal and perpendicular to the wall. No uprights were observed. Limb sizes are from 2.5 cm x 18 cm up to 10 cm x 170 cm with spacing of 0 to 2 meters. The felling method for these limbs was tearing.

From datum H to I) Over the first 35 meters the wall is well defined by closely spaced collapsed limbs, mainly perpendicular to the wall. Further west the wall is represented by a wide spaced scatter of limbs (a definite alignment can be discerned). At about 25 meters east of a two-track road, a scatter of limbs occur south of the wall segment. No pattern could be found. The intersection of the older and younger wall occurs about 12 meters east of the road. The scattered wood south of the H-I segment was probably a wing wall. However, no good alignment could be discerned. Limb size here ranged from 2.5 x 15 cm up to 220 x 10 cm. Spacing was between 0 and 5 meters. The felling method for the limbs here was by ripping with a few burned and a few hacked.

The portion of the (datum H to I) wall east of the railroad tracks has been impacted by the two track and railroad. Between the two-track and railroad an intact segment occurs consisting of short narrow limbs diagonal to the wall. The majority of limbs have been torn off. A gap of about 35 meters with no wall alignment occurs west of the railroad. When the wall is again

discernable the limbs occur fairly close together, collapsing diagonally and perpendicular to the wall. They range from 60 cm to 1.5 m in length. Seven are ax cut, a few are burned and the remainder have been torn off.

From datum I to J) The wing is defined adjacent to datum I by mainly long narrow limbs parallel to the wall. About 25 meters NW of datum I the wing begins to taper off and shorter and scattered branches designate the wall. The range in sizes of limbs are 3 x 25 cm up to 8 x 240 cm with 0 to 3 meter spacing. Most limbs are ripped with a few burned and a few hacked.

From datum D to L). This is the older wall which converges with the younger wall at datum D. At datum D is an upright alignment of short posts (average 15 cm above ground surface). Fewer and more scattered and shorter limbs define the older wall in comparison to the younger. The limbs from the inner or older wall could have been robbed for the construction of the younger one since the top of the upright posts appear to have been ripped off. Most are very rotten. About 48 meters SW of datum D is an alignment of four small boulders which were probably employed as post supports. These boulders are made of quartzite and measure between 15 x 30 cm and 44 x 20 cm. There are 4 uprights within 25 cm of the alignment. There are at least three other uprights along this segment, one of which is a paired upright set. All limbs are very short. They range from 3 x 15 cm up to 4 x 95 cm. Spacing is from 0 to 50 cm. A few are over 70 cm and the limbs are weathered and are oriented in every direction. The alignment parallels the two track from datum L to where it joins up with the H-I segment. Many of the limbs occur along the edge of the two-track in no discernable pattern and it is apparent that this wall segment has been disturbed by the 2-track.

Station 30 (S-30). This is hearth 1 located about 12 meters east of a two track road. It was designated by a green post put there by the BLM some time ago. It measures one meter N-S by 55 cm E-W and consists of a dense concentration of fire-broken basalt. A few pieces of charcoal (less than 1 cm) and a scatter of burnt mammal bone (+7 pieces) (very small fragments) were found. No charcoal stain was observed on the surface. There is probably some depth potential since the area is not affected by drainages.

12) Station 31 (S-31). This is hearth #2 and is located about 15 meters NNE of S-30. It is not as visible as hearth 1 and measures 75 cm (SE-NW) by 50 cm (SW-NE). It consists of seven reddened oxidized rocks and a scatter of blackened basalt. An antelope tooth and about 9 small fragments of charred and fired (white) bone fragments were also found. No charcoal staining was observed on the surface. One (1 cm) piece of charcoal and one (0.5 cm) charcoal piece was found. The hearth has good potential for subsurface cultural deposits. It lies on a flat surface subject to little erosion.

13) Station 37 (S-37). This is hearth #3 (possible) which was found during this survey. It is situated in loose silt-sand east

of the trap wall. It consists of five spalled basalt rocks (which could have been spalled by fire). The feature lacked charcoal and burnt bone. It is in a 50 x 50 cm area. Since this is an aeolian area, there is potential for buried cultural deposits. The rocks appear to be uncommon for this particular area.

14) Station 49 (S-49). This is hearth #4. It was found by the BLM and lies in a deflated aeolian area about 8 meters inside of the wall. The contents are a scatter of fire broken rock with an 85 cm (NE-SW) by 45 cm (NW-SE) area. A few very small fragments of charcoal were observed. No charcoal staining was observed. The hearth has been disturbed by slope wash.

15) Station 60 (S-60). A temporary historic camp with a short alignment of juniper limbs. Several sanitary cans and one enamel ware dish pan.

### Tree-Ring Samples

A total of 140 tree ring samples were submitted to the Laboratory of Tree-Ring Research at the University of Arizona from the seven traps (20 from each trap). These were submitted in the hope that this large a sample could provide enough data to provide some chronological information on the sites. It was known that tree ring dating of juniper in the northern Great Basin has not been very successful, so the negative results which were obtained were not unexpected (see letter in Appendix A). Subsequent discussions with Mr. Dennie Bowden, Research Assistant at the Tree Ring Laboratory and the person who analyzed the samples, and with Dr. Jeffrey Dean, Research Associate at the Lab, provided insight into why the dating is so difficult.

The major problem in dating juniper trees (especially Utah Juniper; though it is impossible to establish species from just the wood, one needs the needles) is that outside of the Four Corners area, for some reason, the growth of the trees is not consistent. It is not consistent between different regions, between different trees and often even within the same tree! It is often the case that good rings will occur on one side of a tree and disappear or occur as false rings on the other. They noted that this is likely due to environmental conditions. In the Grand Wash area of the Four Corners area only ten percent of the juniper trees on the canyon rim could be dated whereas over 50 percent were dated on the slope within the canyon. In that case it is believed that the better soil drainage on the slope contributed to the better ring pattern. No definite conclusions have been reached in this regard, however.

Another problem which was identified is that only about ten percent of a juniper tree grows at any one time. Apparently, the individual stems in the multi-stemmed plants compete with one another for growth from year to year and only some of the parts actually attain growth. Thus, branches and trunks grow differen-

tially which means it is often impossible to match branch rings and trunk rings even when one knows they are from the same tree! Fairly good dates are known from local pinyon trees and there are three regional juniper chronologies for Western and Rocky Mountain Juniper (from the Jarbidge Canyon area of northeastern Nevada, the Jackson Mountains of northwestern Nevada and the Grasshopper Trail area of southwestern Idaho). These chronologies were used to try to cross date with the submitted samples. However, the differential growth of the junipers and the difficult problem of finding a beginning point on the outer layers of the juniper (which has a known date) frustrated efforts to match any of the submitted samples except six from the Cobre Trap which could be from the same tree.

#### IV. RECOMMENDATIONS

The undertaking of a data salvage project such as this is not typical of archaeological fieldwork such as survey and excavation in which techniques have become standardized for the profession. While it was not an overly complicated project, it did provide challenges which required testing of several different types of strategies for data retrieval. Some were successful, others were not and had to be discarded and other ways tested. Following are a number of suggestions for future projects of this type which should help make them more consistent and help extract the most useful information with less effort expended.

##### General Methodological Recommendations

The RESULTS section provided many of the inventory techniques which were found to be most profitable in this project. Two of the particular problems encountered in plotting walls and artifacts with the transit, however, were distance and obstructions. It was found to be most profitable to set interior datums (within the traps) and to shoot as many wall and artifact shots as possible from each set up rather than set up repeatedly on the wall alignments. A particular problem which developed at Cobre and to some degree at a few other sites was the obstruction of the transit's view by juniper trees in the walls and interior of the traps. They could have been solved by setting up more often, but with that strategy more error is introduced and much more time is expended. Probably the most profitable strategy is to take more time placing datums in the best observation locations for both distance and angles.

As noted in the METHODOLOGY section, the most efficient way found to do the data retrieval was to 1) do a cursory survey of the trap; 2) conduct the inventory; 3) do the transit survey of the walls and artifact plotting simultaneously; 4) do the wall descriptions while the transit work is being conducted.

Concerning the inventory survey of the traps in particular, a specific technique was found most effective tool when the straight transects were conducted within the trap. Using several persons abreast, it was found that the best strategy is to use high flagged poles set at one or both ends of the transect lines on which to guide. The poles can then be moved as each surveyor reaches the end of a transect. This could even be modified so that only one pole would be needed and other surveyors could determine position from the person guiding on the pole.

As also noted in the METHODOLOGY section, a chain saw was found to be the most effective tool for cutting juniper limbs in the field. This cannot be overemphasized. It was difficult to use a hand saw to cut samples because of the extreme hardness of the wood. Even a chainsaw blade was slow cutting some of the wood. As noted earlier, the use of a Skillsaw with portable generator or

other portable power source may even work better. This was not tried on this project, however. Also, the Tree Ring Laboratory recommended that it would be profitable to use a carbide blade on the chain saw. It is more difficult to sharpen, but the blade will stay sharp much longer in the field.

Wall description was found to be an area that was particularly cumbersome and it took quite a while to find the most efficient method to do that. Initially two persons would survey with the transit while another one did wall descriptions. That proved quite slow and perhaps less accurate. It was found that two persons were much more efficient in recording walls not only because it was faster, but they could discuss problems and their observations of the walls and could more efficiently measure with a long measuring tape. In that regard, a 50 meter drag tape was found to be the most efficient. Other types of tapes became tangled in sagebrush and wood too often, though they did work. A recommendation for future studies, though something not tried on this survey, is the use of a standardized form showing the particular kinds of information needed on the traps. In particular, it would have been much more efficient to have the following categories on a sheet which could be filled out for each wall segment (in addition to other observations as necessary):

1. Range of limb sizes (lengths and widths)
2. Range of limb spacing
3. Felling methods used
4. Range and sizes of any uprights and/or support rocks found
5. Type of rocks found in alignment
6. Configuration of wall elements
7. Presence of standing live or dead trees in wall
8. Presence of modified live trees in or near wall (those that have ripped off or burned off limbs)
9. Presence of manmade feature affecting wall element

#### Tree Ring Sampling and Analysis Recommendations

Several options concerning possible future reserach efforts to develop a chronology for local junipers were discussed with Mr. Dennie Bowden, Research Assistant and Dr. Jeffrey Dean, Research Associate at the Tree Ring Laboratory, University of Arizona. One possibility is to cut samples at a trap where 1) there are live trees adjacent to the traps, 2) there are old stumps which occur there and part of which were used in the adjacent trap, and 3) stumps from the adjacent grove had been used in the walls of the trap. It may be possible to cross date the stumps, live trees and trunks in the walls. The live trees would be necessary for local control in obtaining a firm date. Again, however, this would assume that at least a few of the live trees and stumps and trunks in the walls could be cross dated. The dedrochronologists did not say that this could not be done, but they were not optimistic. One option might be to cut down a live tree which also has scars left from previous "tearing off" of limbs for use in the traps (such trees were definitely found at the Tobar

Trap). They indicated that it may be possible to date the tear scar on the tree which would also date at least one episode of trap building or remodeling. While this would only date one episode of construction at a site, it could provide a starting point for dating other materials. They indicated that this would likely be the most profitable and least expensive way to attempt dating at the traps. All that would be needed for each dating attempt would be a cross section from the live tree and the scarred area where the branch was torn off.

One other possibility discussed was to obtain the services of an associate from the Tree Ring Lab to come to Nevada and observe first-hand the field situation and datable materials. It is likely that they would provide a better assessment of where the best location to take samples would be and which samples would be best to take. This would not guarantee that samples taken could be dated, but it would definitely increase the odds that a datable sample would be taken. It was indicated that they would be able to eliminate many unlikely sample materials and be able to select more uniform samples (such as long straight juniper trunks and branches- better than crooked ones).

One last option offered by the author is long term, but one which would likely be the most profitable and provide useful information for an even broader spectrum of geographic localities and disciplines. That option is the funding of a study which would look into the reasons for the poor quality of rings in juniper in the Great Basin and elsewhere. Juniper samples in the Four Corners area are often 90 percent datable whereas as one moves further north it becomes less so. On the other hand, there is a fairly good chronology for pinyon trees in the northern Great Basin (as well as some juniper at much higher elevations). It was noted earlier that part of this may be due to drainage. Many other environmental conditions are also undoubtedly involved. Perhaps it has to do with soil nutrient variability. Whatever the causes, it has never been studied (this is largely due to fact that juniper is not commercially valuable). Should the cause be identified, a way may be identified to develop a good chronology, at the least for juniper groves in limited areas and possibly for a much wider distribution of the Utah Juniper species.



APPENDICIES

APPENDIX A. Letter from Tree-Ring Laboratory.

LABORATORY OF TREE-RING RESEARCH  
The University of Arizona  
Tucson, Arizona 85721 USA

1 December 1986

Mr. Michael R. Polk  
Sagebrush Archaeological Consultants  
4263 Monroe Blvd.  
Ogden, Utah 84403

Dear Mr. Polk:

This letter constitutes our final report on the analysis of <sup>140</sup>120 tree-ring samples from seven antelope traps in northeastern Nevada.

As I cautioned you might be the case during our initial telephone conversation, we are unable to establish quality crossdating within the samples from each trap, much less with any local chronologies. We did obtain some vague and unsatisfactory crossdating from the Cobre Trap but it is our opinion that that the cross sections which do roughly crossdate are from a single tree.

We also checked all remotely possible cross sections from the traps against three juniper chronologies for the area:

Jarbridge Canyon, ne Nevada	A.D. 1334-1984
Jackson Mountains, nw Nevada	A.D. 1267-1984
Grasshopper Trail, sw Idaho	A.D. 1492-1984

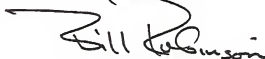
These chronologies are from either Western or Rocky Mountain juniper as no chronologies have been established for Utah juniper in the northern Great Basin.

I regret that our results are so negative, even if not unexpected. Please let me know if we can help further. The samples themselves are catalogued into our storage system and will be kept for future reference.

Our invoice reflecting a charge of \$10 per sample is enclosed.

With best regards.

Sincerely,

A handwritten signature in dark ink, appearing to read "Bill Robinson". The signature is fluid and cursive, with a long horizontal stroke extending to the left.

William J. Robinson  
Professor

enc: invoice

APPENDIX B. Tree Ring Sample Location Catalog.

# LOCATIONS OF TREE RING SAMPLES TAKEN FROM ANTELOPE TRAPS

Site CRNV-11-3336 TOBAR TRAP

<u>Sample #</u>	<u>Location</u>
D-1	7.6 m north from Datum A along wing
D-2	19.3 m east from Datum A along main wall
D-3	1 m north from Datum C along main wall
D-4	16 m east from Datum C along main wall
D-5	46 m northwest from Datum D along main wall
D-6	1.5 m southeast from Datum D along main wall
D-7	92 m east from Datum F along main wall
D-8	81 m east from Datum F along main wall
D-9	49 m east from Datum F along main wall
D-10	26 m east from Datum F along main wall
D-11	42 m west from Datum F along main wall
D-12	82 m west of Datum F along main wall
D-13	5 m northeast of Datum G along main wall
D-14	12 m southeast of Datum H along main wall
D-15	76 m northwest of Datum H along main wall
D-16	47 m northwest of Datum I along main wall
D-17	47 m northwest of Datum I along main wall
D-18	21 m north of Datum J along main wall
D-19	23 m west of Datum K along wing
D-20	29 m west of Datum K along wing

Site CRNV-11-3350 Clover Valley Trap

<u>Sample #</u>	<u>Location</u>
D-1	24 m south of Datum I on main wall
D-2	48 m south of Datum I on main wall
D-3	54 m south of Datum I on main wall (dead limb off live tree likely used in trap)
D-4	80 m south of Datum I on main wall
D-5	35 m north of Datum H on main wall
D-6	28 m north of Datum H on main wall
D-7	18 m southeast of Datum H on main wall
D-8	71 m southeast of Datum H on main wall
D-9	At Datum F on main wall
D-10	38 m northeast of Datum F on main wall
D-11	50 m north of Datum E on outer wall
D-12	58 m north of Datum E on outer wall
D-13	At Datum C on wing
D-14	38 m southwest of Datum L on main wall
D-15	95 m southwest of Datum L on main wall
D-16	135 m southwest of Datum L on main wall
D-17	185 m southwest of Datum L on main wall
D-18	230 m south of Datum L on main wall
D-19	50 m north of Datum I on main wall
D-20	41 m north of Datum I on main wall

Site CRNV-11-3337 North Dry Lake Flat Trap

<u>Sample #</u>	<u>Location</u>
D-1	3 m west of Datum A on wing
D-2	25 m north of Datum A on main wall
D-3	125 m north of Datum A on main wall
D-4	136 m north of Datum A on main wall
D-5	17 m northeast of Datum D on main wall
D-6	95 m northeast of Datum D on main wall
D-7	19 m east of Datum E on main wall
D-8	11.5 m west of Datum F on main wall
D-9	91 m south of Datum F on main wall
D-10	153 m south of Datum F on main wall
D-11	25 m south of Datum H on main wall
D-12	40 m south of Datum H on main wall
D-13	50 m north of Datum I on main wall
D-14	14 m south of Datum I on main wall
D-15	77 m south of Datum I on main wall
D-16	100 m southwest of Datum I on main wall
D-17	5 m west of Datum H on main wall
D-18	40 m west of Datum J on main wall
D-19	18 m east of Datum K on main wall
D-20	5 m east of Datum K on main wall



Site CRNV-11-3338 South Dry Lake Flat Trap

<u>Sample #</u>	<u>Location</u>
D-1	12.7 m south of Datum G on main wall
D-2	33 m south of Datum G on main wall
D-3	42 m south of Datum G on main wall
D-4	75 m south of Datum G on main wall
D-5	5 m southwest of Datum H on main wall
D-6	85 m SW of Datum H on main wall
D-7	97 m SW of Datum H on main wall
D-8	112 m NE of Datum I on main wall
D-9	55 m west of Datum I on main wall
D-10	167 m east of Datum J on main wall
D-11	8 m west of Datum J on wing
D-12	5 m west of Datum A on wing
D-13	73 m NE of Datum A on main wall
D-14	123 m NE of Datum A on main wall
D-15	158 m E of Datum A on main wall
D-16	191 m east of Datum A on main wall
D-17	231 m east of Datum A on main wall
D-18	97 m east of Datum D on main wall
D-19	28.5 m SE of Datum F on main wall
D-20	north of Datum G on main wall

Site CRNV-11-142    Ruby Wash Trap

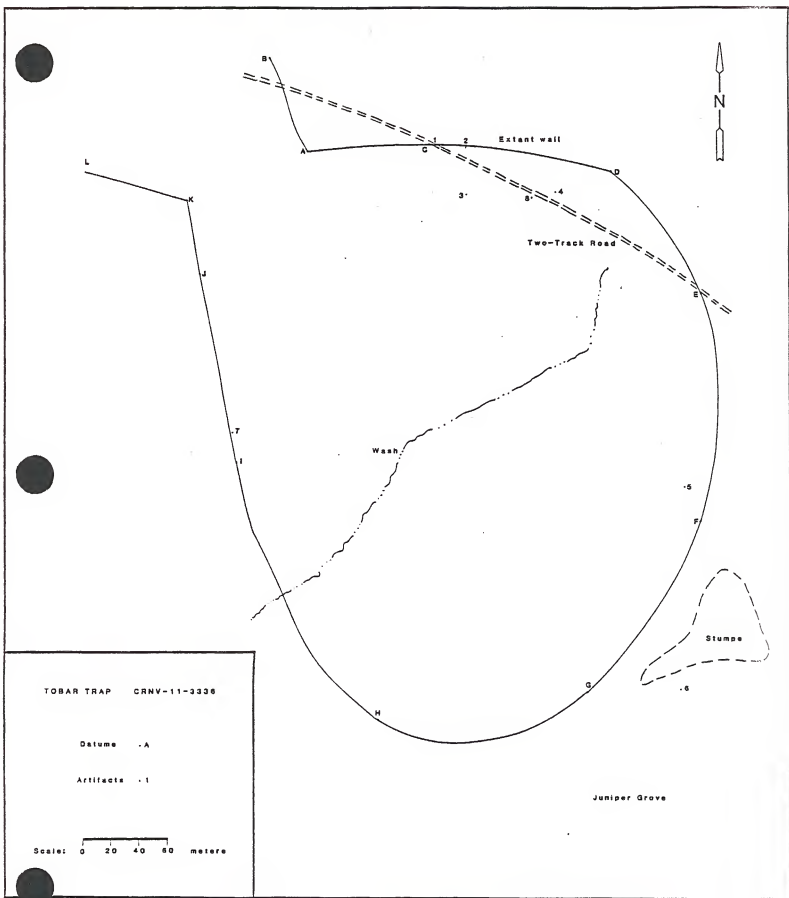
<u>Sample #</u>	<u>Location</u>
D-1	21 m east of Datum A on wing
D-2	6.5 m south of Datum A on main wall
D-3	32 m south of Datum A on main wall
D-4	84 m south of Datum A on main wall
D-5	102 m south of Datum A on main wall
D-6	22.5 m north of Datum C on main wall
D-7	7 m north of Datum D on main wall
D-8	At Datum E
D-9	30.5 m northwest of Datum E on main wall
D-10	33 m southeast of Datum F on main wall
D-11	44 m northwest of Datum F on main wall
D-12	15 m southwest of Datum G on main wall
D-13	96 m northeast of Datum G on main wall
D-14	96 m northeast of Datum G on main wall
D-15	106 m northeast of Datum G on main wall
D-16	122 m northeast of Datum G on main wall
D-17	137 m northeast of Datum G on main wall
D-18	13.3 m southwest of Datum H on main wall
D-19	At Datum H on main wall
D-20	50 m southeast of Datum H on main wall

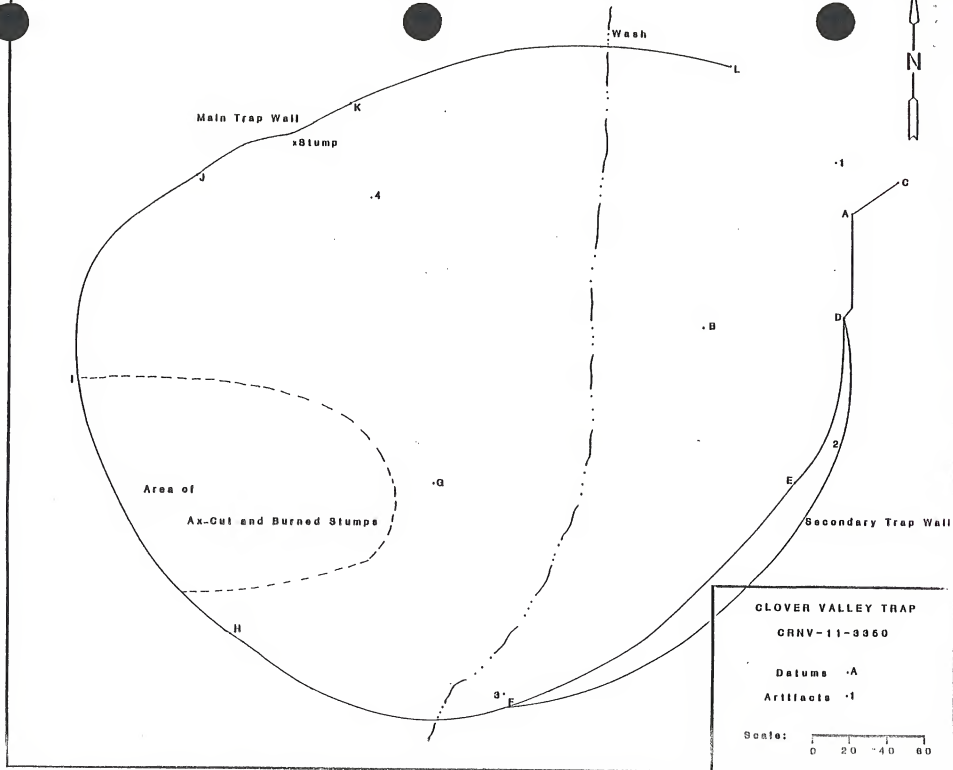
Site CRNV-11-3334 Currie Hills Trap

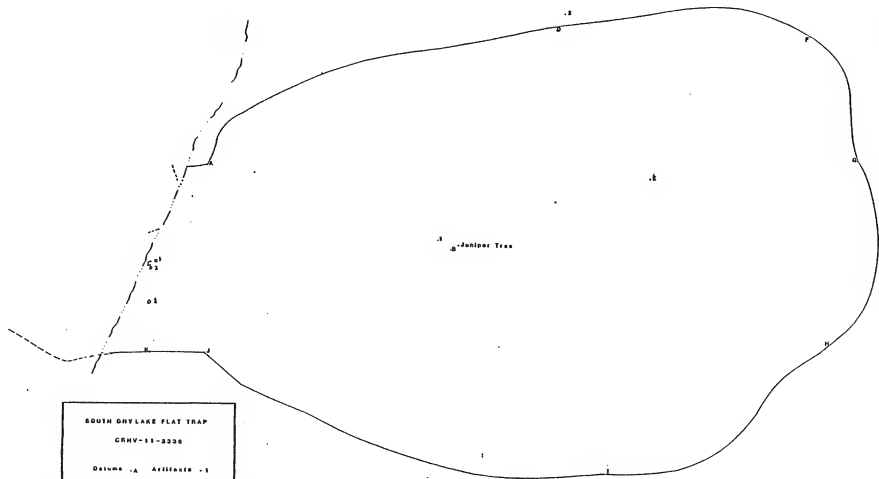
<u>Sample #</u>	<u>Location</u>
D-1	At Datum A on wall of trap
D-2	27 m east of Datum A on wall of trap
D-3	48 m east of Datum A on wall of trap
D-4	42 m west of Datum B on wall of trap
D-5	15 m west of Datum B on wall of trap
D-6	53 m east of Datum C on wall of trap
D-7	8 m west of Datum C on wall of trap
D-8	27 m southeast of Datum C on wall of trap
D-9	43 m southeast of Datum C on wall of trap
D-10	22.5 m north of Datum D on wall of trap
D-11	44 m southwest of Datum D on wall of trap
D-12	At Datum E on wall of trap
D-13	30 m northwest of Datum E on wall of trap
D-14	17 m southeast of Datum F on wall of trap
D-15	22.5 m NW of Datum F on wall of trap
D-16	78 m NW of Datum F on wall of trap
D-17	123 m NW of Datum F on wall of trap
D-18	81 m SE of Datum G on wall of trap
D-19	46 m NE of Datum H on wall(?) of trap
D-20	30 m NE of Datum A on wall(?) of trap

Site CRNV-11-3335 Cobre Trap

<u>Sample #</u>	<u>Location</u>
D-1	6.8 m east of Datum A
D-2	4 m west of Datum A on wing
D-3	At Datum I on wing
D-4	11.5 m west of Datum I on wing
D-5	62 m west of Datum D on new trap wall
D-6	24 m east of Datum D on trap wall
D-7	59 m east of Datum D on trap wall
D-8	6 m northwest of Datum E on trap wall
D-9	63 m south of Datum E on trap wall
D-10	At Datum F on trap wall
D-11	82 m north of Datum G on trap wall
D-12	20 m southwest of Datum G on trap wall
D-13	40 m southwest of Datum G on trap wall
D-14	94 m southwest of Datum G on trap wall
D-15	168 m southwest of Datum G on trap wall
D-16	218 m west of Datum G on trap wall
D-17	33 m south of Datum H on old trap wing
D-18	56 m northeast of Datum L on old trap wall
D-19	78 m northeast of Datum L on old trap wall
D-20	87 m northeast of Datum L on old trap wall







SOUTH DRY LAKE FLAT TRAP

CRNV-11-5536

Datum: A. Azimuth: 1

Scale: 0 20 40 60 meters



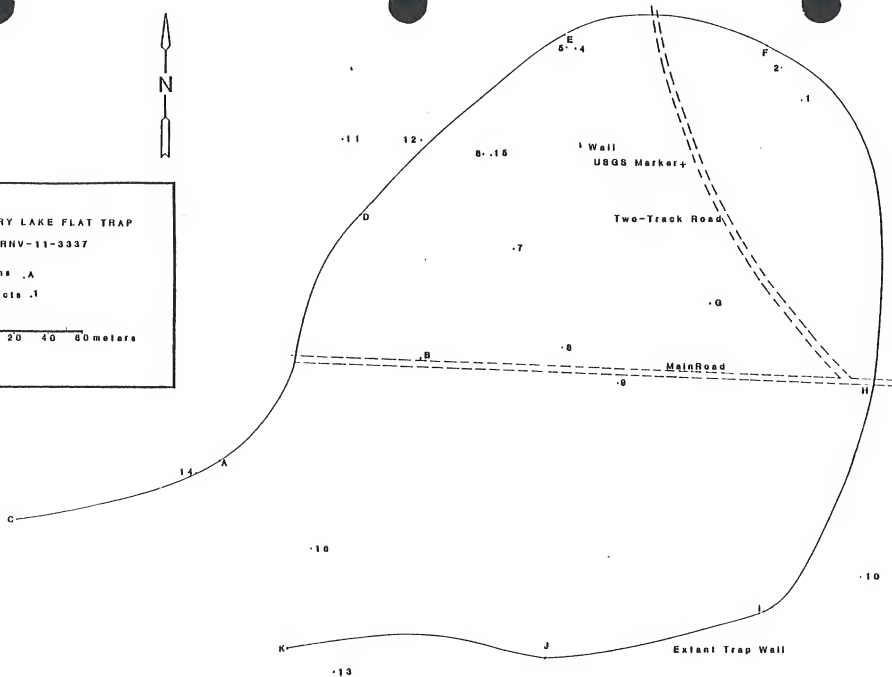
NORTH DRY LAKE FLAT TRAP

CRNV-11-3337

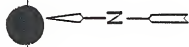
Datums .A

Artifacts .I

Scale: 0 20 40 60 meters







Fence line

two-track road

Extant: Trap Wall

RUBY WASH TRAP  
CGRNV-11-142

Delums .A

Artifacts .1

Wash . . . . .

Scale: 0 20 40 60  
meters

.10

.7

.8

.9

.6

.5

.4

.2

.J

.H

.O

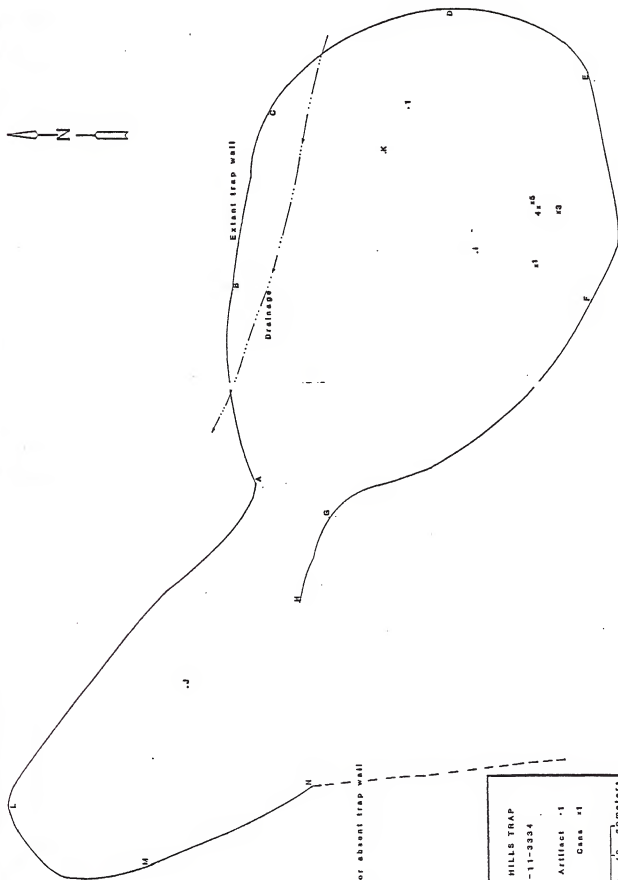
.D

.E

.F

.1

.I



CURRIE HILLS TRAP

GRNV-11-3334

Station A Artifact 11

Cross 11

Scale: 0 20 40 60 meters

